

**FEB 26 2010**

Attorney Docket No.: E8019-00001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of J.S. Reid et al.**

**Serial No: 09/739,933**

**Filed: December 18, 2000**

**Examiner: Macfarlane, Stacey Lee**

**Group Art Unit: 1649**

**Confirmation No.: 4882**

**For: COMPOSITIONS AND METHODS FOR MANIPULATING GLIAL  
PROGENITOR CELLS AND TREATING NEUROLOGICAL DEFICITS**

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1470  
Alexandria, VA 22313-1470

**RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT (37 CFR 1.121) AND  
AMENDMENT IN COMPLIANCE WITH 37 CFR 1.121**

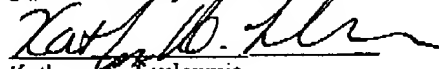
Dear Madam:

**Introductory Comments**

This paper responds to the February 18, 2010 Notice of Non-Compliant Amendment regarding the October 9, 2009 Communication Regarding Sequence Compliance mailed September 9, 2009 in the patent application referenced above. The claims in the listing submitted herewith set forth the amendments to refer to SEQ ID NOs, and the listing begins on a new page to comply with MPEP 608.01 and §1.75(h). In addition, claims 67-69, which were multiply dependent on 1, 33, 63, 65, 66, or 70, have been canceled for reasons unrelated to patentability and for formatting purposes only, and have been identically introduced as new claims 71-73, so that they recite dependency on lower numbered claims. No new matter has been introduced by rewriting these claims. Applicants respectfully request entry of this compliant Amendment.

**CERTIFICATE OF MAILING/FACSIMILE TRANSMISSION PURSUANT TO 37 C.F.R. §1.8**  
I hereby certify that this correspondence (and anything referred to as being transmitted herewith) is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. (571) 273-8300) on the date shown below.

Dated: February 26, 2010

  
Kathryn A. Toulounis

Attorney Docket No.: E8019-00001

Please amend the claims as set forth in the claims listing submitted herewith. The listing of the claims will replace all prior versions, and listings of claims in the application.

*No Admission.* The claims presented in the claims listing are labeled pursuant to the requirements of the United States Patent and Trademark Office for convenience in examination. The cancellation of a claim or reference to a claim as "currently amended" is not an admission that the claim was altered for any reason related to patentability. Applicants reserve the right to pursue the subject matter of the canceled claims in this or any other appropriate patent application.

**Amendments to the Claims (Corrected)** are reflected in the listing of claims which begins on page 3 of this Amendment.

**In the Claims:**

1. (Currently amended) A method for attracting a neural progenitor cell, or a progeny of a neural progenitor cell, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising delivering to the striatum, pallidum, septum, cortex, external capsule, internal capsule, substantia nigra-ventral tegmentum, or at or adjacent to an ependymal or subependymal zone of an individual having CNS damage or lesion a sufficient amount of a purified TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1), wherein said delivery is outside of the ventricles, and wherein said delivery effects migration of the neural progenitor cell or progeny thereof to the site of damage or lesion in the CNS tissue, thereby obtaining a therapeutic effect.
2. (Currently amended) The method of claim 1, further comprising delivering a sufficient amount of a purified TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1), to stimulate differentiation of the neural progenitor cell or progeny thereof.
3. (Canceled)
4. (Canceled)
5. (Currently amended) The method of claim 1, wherein the purified TGF- $\alpha$  polypeptide or a or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1), is delivered by intrastriatal infusion.
6. (Original) The method of claim 1, wherein the central nervous system (CNS) tissue is brain tissue.
7. (Original) The method of claim 6, wherein the brain tissue is adjacent to a subependymal zone.
8. (Original) The method of claim 1, wherein the central nervous system (CNS) tissue is spinal nerve root origins.

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9-32. (Canceled)

33. (Currently Amended) A method for attracting a neural progenitor cell, or a progeny thereof, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising administering a sufficient amount of purified transforming growth factor alpha (TGF $\alpha$ ) polypeptide, or functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>5</sub>Cys (SEQ ID NO: 1), to attract the neural progenitor cell or its progeny to the site, wherein said administration is outside of the ventricles in the striatum, pallidum, septum, cortex, external capsule, internal capsule, substantia nigra-ventral tegmentum, or at or adjacent to an ependymal or subependymal zone of at or adjacent to an ependymal or subependymal zone.

34-62. (Canceled)

63. (Currently Amended) A method for attracting a neural progenitor cell, or a progeny thereof, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising intrastriatally administering a sufficient amount of purified transforming growth factor alpha (TGF $\alpha$ ) polypeptide, or functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>5</sub>Cys (SEQ ID NO: 1), to attract the neural progenitor cell or its progeny to the site.

64. (Previously presented) The method of claim 1, 33, 63, 65 or 66 wherein said administration is by continuous infusion.

65. (Currently amended) A method for attracting a neural progenitor cell, or a progeny of a neural progenitor cell, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising delivering to the striatum, pallidum, septum, cortex, external capsule, internal capsule, substantia nigra-ventral tegmentum, or at or adjacent to an ependymal or subependymal zone of an individual having CNS damage or lesion a sufficient amount of a

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purified TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1), wherein said delivery is outside of the ventricles, and wherein said delivery effects migration of the neural progenitor cell or progeny thereof to the site of damage or lesion in the CNS tissue, wherein the delivering of TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1) is for a period of at least about sixteen days, thereby obtaining a therapeutic effect.

66. (Currently amended) A method for attracting a neural progenitor cell, or a progeny of a neural progenitor cell, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising delivering to the striatum, pallidum, septum, cortex, external capsule, internal capsule, substantia nigra-ventral tegmentum, or at or adjacent to an ependymal or subependymal zone of an individual having CNS damage or lesion a sufficient amount of a purified TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1), wherein said delivery is outside of the ventricles, and wherein said delivery effects migration of the neural progenitor cell or progeny thereof to the site of damage or lesion in the CNS tissue, wherein the delivering of TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>8</sub>Cys (SEQ ID NO: 1) is initiated weeks after the occurrence of the injury, thereby obtaining a therapeutic effect.

67-69. (Canceled)

70. (Currently amended) A method for attracting a neural progenitor cell, or a progeny of a neural progenitor cell, to a site of damage or lesion in a central nervous system (CNS) tissue, the method comprising delivering to the forebrain or midbrain of an individual having CNS damage

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or lesion a sufficient amount of a purified TGF- $\alpha$  polypeptide or a functional fragment thereof comprising CysX<sub>7</sub>CysX<sub>4</sub>CysX<sub>10</sub>CysXCysX<sub>6</sub>Cys (SEQ ID NO: 1), wherein said delivery is outside of the ventricles, and wherein said delivery effects migration of the neural progenitor cell or progeny thereof to the site of damage or lesion in the CNS tissue, thereby obtaining a therapeutic effect.

71. (New) The method of any of claims 1, 33, 63, 65, 66, or 70 wherein the CNS damage or CNS lesion results from ischemia.

72. (New) The method of any of claims 1, 33, 63, 65, 66, or 70 wherein the progenitor cell or progeny thereof is from the ependymal zone.

73. (New) The method of any of claims 1, 63, 65, 66 or 70 wherein TGF- $\alpha$  is delivered.

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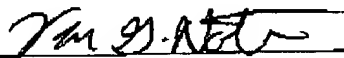
**Summary**

Applicants believe that the Claims are now in Compliance with 37 CFR § 1.121. The Examiner is invited to telephone the undersigned at (619) 744-2264 for any reason to advance the prosecution of the application.

The Assistant Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication, to Deposit Account 04-1679.

Respectfully submitted,

February 26, 2010

  
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